

INFORMATION SHEET

ORDER NO.
WASTE DISCHARGE REQUIREMENTS
HOWARD ESTATE
UNIMIN CORPORATION
UNIMIN CORPORATION IONE PLANT
AMADOR, COUNTY

The Unimin Corporation operates and the Howard Estate owns a silica sand and clay mining operation near Ione. The facility discharges mostly clay slurry mining waste to several unlined tailings impoundments (previous mine excavations). As the impoundments fill they are reclaimed by backfilling with overburden and soil in compliance with an approved SMARA reclamation plan.

Previously, these tailings discharges were regulated as Group C mining waste per Title 27 California Code of Regulations, Division 2 (Title 27). Recent investigations have determined that the tailings waste is a Group B mining waste with aluminum, iron, lead, nickel, sodium, and sulfate concentrations greater than water quality goals and background concentrations in groundwater. The discharger proposes to treat the tailings by dewatering to 60% solids. The dewatered tailings will have little free liquid and on consolidation will have an approximate hydraulic conductivity of 10^{-7} cm/sec. Clarified water from the dewatering process will be reused on site in the milling process.

The discharger has demonstrated that the dewatered tailings will contain little free draining water and after consolidation will have a hydraulic conductivity equivalent to an engineered clay liner. Installation of a prescriptive liner would be an unnecessary expense that would not effectively protect water quality better than the discharger's plan to dewater the tailings.

RDA; 22 July 2008